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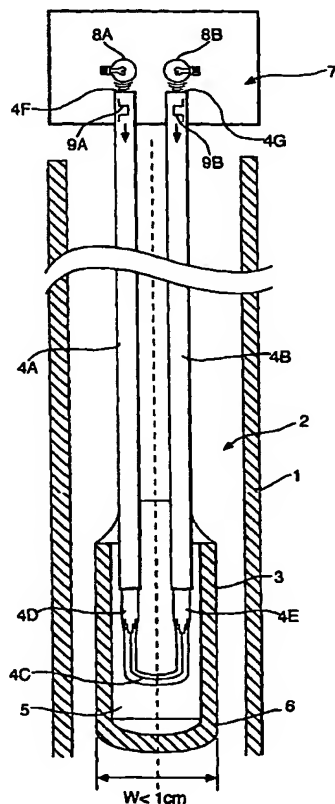
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(54) Title: METHOD FOR INSTALLING A DOUBLE ENDED DISTRIBUTED SENSING FIBER OPTICAL ASSEMBLY WITHIN A GUIDE CONDUIT



(57) Abstract: A method of installing a double ended distributed sensing optical fiber assembly (2) within a guide conduit (1), such as a small diameter control line in an underground borehole, comprises: providing a nose section (3) having an outer width (W) which is less than 1 cm, preferably less than 5 mm, which nose section (3) interconnects the proximal ends (4C and 4D) of two sections (4A and 4B) of distributed sensing fiber optical cable such that light transmitted along the length of one section of fiber optical cable (4A) is transmitted via the nose section (3) into the other section (4B) of fiber optical cable; inserting the nose section (3) into the guide conduit (1) such that the nose section (3) moves through the guide conduit (1) ahead of said two sections (4A and 4B) of distributed sensing fiber optical cable that are interconnected thereby; and connecting the distal ends (4E and 4F) of the sections of distributed sensing fiber optical cable to a light transmission and receiving unit (7) which is configured to convert the light spectra backscattered from different points of the fiber optical cable into distributed temperature, pressure and/or other physical data.

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